NEW MEXICO
ENVIRONMENT DEPARTMENT

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RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

Certified Mail - Return Receipt Requested

March 4, 2015

Mayor Phillip Burch
City of Artesia
P.O. Box 1310
Artesia, New Mexico 88211

Re: **City of Artesia Waste Water Treatment Plant; Major-Municipal; NPDES Compliance Sampling Inspection; SIC 4952; NPDES Permit NM022268; February 11, 2015**

Dear Mr. Burch:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further you are encouraged to notify in writing both USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Racquel Douglas
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
Fountain Place
1445 Ross Avenue
Dallas, Texas 75202-2733

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Daniel Valenta at (505) 827-2575 or at daniel.valenta@state.nm.us.

Sincerely,

/s/Bruce Yurdin

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail
Carol Peters, USEPA (6EN-WM) by e-mai
Brent Larsen, USEPA (6WQ) by e-mail
Racquel Douglas, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) by e-mail
Anthony Loston, USEPA (6EN) by e-mail
NMED District III, Mike Kesler by e-mail

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

1	Transaction Code	2	NPDES	11	yr/mo/day	17	Inspec. Type	18	Inspector	19	Fac Type	20
	N	5	NM0022268		150211		S		S		1	

Remarks: MAJOR WWTP

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
1	3	N	N	

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*

City of Artesia Waste Water Treatment Plant/ 1702 Halderman Road/ Artesia, New Mexico 88210 Driving Directions: South on Hwy 285 from Roswell – go to Main Street in town and turn Left (East) onto East Main Street (US82) travel approximately 2.14 mile to Halderman Road ☐ turn Left (North) travel 1 mile to WWTP Entrance on Right (East) side of road.

Eddy County

Entry Time /Date: **0934/February 11, 2015**

Exit Time/Date: **1530/February 11, 2015**

Permit Effective Date: **September 1, 2013**

Permit Expiration Date: **August 31, 2018**

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

Patsy Hernandez, Lead Operator 575-748-0261 (Fax) 575-746-0068 (cell) 575-513-1869
Jerry Whitehead, Wastewater Supervisor 575-748-0260 (fax) 575-746-0068 (cell) 575-513-2635

Other Facility Data

LAT 32.85555900 N
LONG –104.35837000 W

SIC 4952

Name, Address of Responsible Official/Title/Phone and Fax Number

Mayor Phillip Burch, P.O. Box 1310, Artesia, NM 88211/575-746-3593

Contacted: Yes [ ] No [X]

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	U	Flow Measurement	S	Operations & Maintenance	N	CSO/SSO
M	Records/Reports	S	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	S	Compliance Schedules	N	Pretreatment	N	Multimedia
S	Effluent/Receiving Waters	S	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

1. **SEE REPORT AND FURTHER EXPLANATIONS.**

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Daniel Valenta */s/Daniel Valenta*	NMED/SWQB 505-827-2575	3/4/2015
Signature of Management QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Sarah Holcomb */s/Sarah Holcomb*	NMED/SWQB 505-827-2798	3/4/2015

City of Artesia Waste Water Treatment Plant	PERMIT NO. NM0022268

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED no.)*
DETAILS:

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE ☒ Y ☐ N ☐ NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES ☒Y ☐ N ☐ NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT ☒ Y ☐ N ☐ NA

4. ALL DISCHARGES ARE PERMITTED ☒Y ☐ N ☐ NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **YES**)*
DETAILS:

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. ☒ Y ☐ N ☐ NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. ☒S ☐ M ☐ U ☐ NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING ☒ Y ☐ N ☐ NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING ☒Y ☐ N ☐ NA

c) ANALYTICAL METHODS AND TECHNIQUES. ☒ Y ☐ N ☐ NA

d) RESULTS OF ANALYSES AND CALIBRATIONS. ☒ Y ☐ N ☐ NA

e) DATES AND TIMES OF ANALYSES. ☒ Y ☐ N ☐NA

f) NAME OF PERSON(S) PERFORMING ANALYSES. ☒ Y ☐ N ☐ NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. ☒ S ☐ M ☐ U ☐ NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. ☒ S ☐ M ☐ U ☐ NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. ☐Y ☒ N ☐ NA
. **Influent Flow Data Used for Loading Calculations**

SECTION C – OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** .)*
DETAILS:

1. TREATMENT UNITS PROPERLY OPERATED. ☒S ☐ M ☐U ☐ NA

2. TREATMENT UNITS PROPERLY MAINTAINED. ☒ S ☐ M ☐ U ☐ NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. ☒ S ☐ M ☐ U

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. ☒ S ☐ M ☐ U ☐ NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE. ☒S ☐ M ☐U ☐ NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. ☒S ☐ M ☐ U ☐ NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. **New parts ordered.** ☒ S ☐ M ☐U ☐ NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. ☒ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. ☒Y ☐N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. ☒Y ☐ N ☐ NA

City of Artesia Waste Water Treatment Plant	PERMIT NO. NM0022268

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?	☐Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?	☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	☐ Y ☐ N ☒ NA
10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?	☐ Y ☒ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	☐ Y ☐ N ☒ NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☒ S ☐M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **no**).*
DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	☒ Y ☐N ☐ NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	☒ Y ☐ N ☐ NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	☐ Y ☐ N ☒ NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	☒Y ☐ N ☐ NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE	☒ Y ☐ N ☐ NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	☐ Y ☐ N ☒ NA
b) PROPER PRESERVATION TECHNIQUES USED.	☒ Y ☐ N ☐ NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	☒ Y ☐ N ☐ NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	☐Y ☐ N ☒ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☒U ☐ NA *FURTHER EXPLANATION ATTACHED **YES**)*
DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED.	☐ Y ☒ N ☐ NA
TYPE OF DEVICE **Flow measured at influent not the effluent.**	
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.	☒Y ☐ N ☐ NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED	☐ Y ☐N ☒ NA
4. CALIBRATION FREQUENCY ADEQUATE. *(DATE OF LAST CALIBRATION_____)*	☐ Y ☒ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.	☐ Y ☒ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	☐ Y ☒ N ☐NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	☐ Y ☒ N ☐ NA
6. HEAD MEASURED AT PROPER LOCATION.	☒ Y ☐ N ☐ NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	☒ Y ☐ N ☐ NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **no**)*
DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)*	☒ Y ☐ N ☐ NA

City of Artesia Waste Water Treatment Plant	PERMIT NO. NM0022268

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED ☐ Y ☐ N ☒ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. __ % OF THE TIME. ☐ Y ☐ N ☒ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME ____	**Cardinal Laboratory**	**Bio Aquatics**
LAB ADDRESS__	**101 E. Marilyand/Hobbs, NM 86240**	**2501 Maynes Rd., Ste 100/Carllton, TX 75006**
PARAMETERS PERFORMED	**Selenium**	**WET**

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☒S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED NO).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	**NO**	**NO**	**NO**	**NO**	**NO**	**CLEAR**	

RECEIVING WATER OBSERVATIONS:

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☒S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED no).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☒S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____ (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES *(FURTHER EXPLANATION ATTACHED No).*

1. SAMPLES OBTAINED THIS INSPECTION. ☒ Y ☐ N ☐ NA
Grab sample obtained from Outfall 001.

2. TYPE OF SAMPLE OBTAINED

GRAB XX COMPOSITE SAMPLE __ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☒ Y ☐ N ☐ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☒ N ☐ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☒ N ☐ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☒ Y ☐ N ☐ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

City of Artesia Waste Water Treatment Plant
NPDES Permit NM0022268
Compliance Sampling Inspection
February 11, 2015

Introduction

On February 11, 2015 a Compliance Sampling Inspection (CSI) was conducted at the City of Artesia Wastewater Treatment Plant (WWTP) by Daniel Valenta of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB). The inspection was conducted by NMED for the US Environmental Protection Agency (USEPA), Region VI, under the National Pollutant Discharge Elimination System (NPDES) permit program, in accordance with the Federal Clean Water Act. These inspections are conducted under contract with the USEPA and are used by USEPA to evaluate compliance with the NPDES permit program. This inspection report is based on information supplied by the City of Artesia representatives (the permittee), observations made by the NMED inspectors, reports and records kept by the permittee and/or NMED.

The Artesia WWTP is classified as a major municipal discharger under the Federal Clean Water Act (CWA), section 402 NPDES permit program, and is assigned NPDES permit number NM0022268. The Standard Industrial Classification Code (SIC) is 4952.

The facility is permitted for a design flow of 2.6 Million Gallons per Day (MGD). The plant was originally built to treat 1.3 MGD of wastewater. A second treatment train, identical to the original was built a few years later. The discharge for the WWTP enters the Pecos River in Water Quality Segment 20.6.4.206 NMAC. The Designated Uses for this segment of the river are: irrigation, livestock watering, wildlife habitat, secondary contact and warmwater aquatic life.

Inspection Details

The inspector arrived at the Artesia WWTP at 0934 hours and met with Ms. Patsy Hernandez, Lead Operator; the inspector showed his credentials and explained the purpose of the inspection. Mr. Jerry Whitehead, Wastewater Supervisor, joined us shortly afterward. After a tour of the facility a records review, and laboratory inspection was conducted. An exit interview was conducted with Mr. Jerry Whitehead and Ms. Patsy Hernandez, the inspector left the facility at 1530 hours.

Treatment Scheme

Raw Sewage is delivered to the City of Artesia Wastewater Treatment Plant (WWTP) through a collection system that extends 56 miles with five lift stations. The service area is slightly more than two square miles and includes a population of approximately 11,301 persons. Contributing industries include: Navajo Refining Company LLC, oil and gas industry support businesses, restaurants, hotels, carwashes, gas stations, laundromats, schools and the Federal Law Enforcement Training Center.

City of Artesia Waste Water Treatment Plant
NPDES Permit NM0022268
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February 11, 2015

A septage receiving station is located at the WWTP wet well before the raw sewage enters the treatment works. At the head of the treatment plant, the influent gravity flows to the first of two automatic bar screens for large solids removal. The majority of the treatment units are above ground due to the high water table in the area. Following the first bar screen are a set of Flygt pumps that lift the sewage to the second bar screen and to the influent flow measurement Parshall flume with a staff gauge and a Drexelbrook differential pressure sensor that records the totalized flow. The original plant design had only one bar screen located after the Flygt pumps. Large solids were damaging to the pumps so the additional bar screen was built. Following that is a rectangular aerated grit removal chamber. The solids removed from the screens and from the grit chamber are dried and after passing the paint filter test, disposed of at the county landfill between Carlsbad and Hobbs, New Mexico. The treatment plant is monitored with a SCADA control system. An alarm call out system is in place with the operators' phone numbers programed in. The facility has a backup diesel generator for power that is exercised weekly.

Following grit removal, the liquid waste is sent to one of four race track design oxidation ditches, extended air treatment units. These are built as two parallel trains. Each train can also be run parallel. At the time of the inspection, all four race tracks - oxidation ditches were in operation. The oxidation ditches are run through four phases a day lasting eight hours each. The cycles rotate between aerobic and anaerobic, mixing and settling. Following the oxidation ditches are two secondary clarifies, one each for the separate treatment trains. Solids are wasted from the oxidation ditches and the secondary clarifiers. Return Activated Sludge (RAS) from the secondary clarifier is sent back to the head of the plant. Decants from the secondary clarifiers are sent to the ultraviolet disinfection system, consisting of a single channel with three banks of lights. Following disinfection is the effluent flow meter Parshall flume with a staff gauge and a Drexelbrook differential pressure sensor that records the totalized flow. The effluent flow meter is not installed correctly and though was recording measurements, was not being used for NPDES reporting. The influent flow was being used for reporting at the time of the inspection.

Beyond the effluent flow measurement is a splitter well that can direct the effluent to either the outfall at the Pecos River or to a reuse holding pond. The outfall at the Pecos River is through an enclosed pipe approximately ½ to 1 mile to the North East. A rough rock structure has been installed at the outfall location to stabilize the soils, prevent erosion and to enhance aeration of the treated water as it enters the river.

The reuse water is sent to parks in the city. Solids wasted from the treatment units are sent through a belt filter press where a polymer is added for dewatering. They are then dried in concrete beds with under drains, mixed with mulch to achieve Class A quality as defined under the 40 CFR 503 sludge regulations for compost and used on parks in the City of Artesia. The under drains that collect the liquids are plumbed so liquids are sent back to the head of the treatment plant.

City of Artesia Waste Water Treatment Plant
NPDES Permit NM0022268
Compliance Sampling Inspection
February 11, 2015

Finding

The facility is permitted for a design flow of 2.6 Million Gallons per Day (MGD). The plant was originally built to treat 1.3 MGD of wastewater. A second treatment train, identical to the original was built a few years later. The NPDES effluent limit loading values in pounds per day were based on the original plant design capacity of 1.3 MGD. The current facility is designed to treat 2.6 MGD. The facility has not gone through an Antidegredation review therefore, all effluent loading values are based on the previous design of 1.3 MGD, the facility has been able to meet its loading limits. It primarily discharges effluent during the months of October, November, and December when reuse is at the lowest.

According to the permit application for the City of Artesia WWTP signed January 30, 2012, the influent flow from the Navajo Refinery will be a combination of process wastewater and non-process wastewater. The indicated average daily volume of process wastewater is 0.0216 MGD. This will be combined with 0.2160 MGD non-process wastewater, a mixing of 10 to 1, see attached Part F Supplemental Application Information.

In a letter dated May 27, 2014, Update on Selenium Removal Technologies and Understanding between Navajo Refining Company, L.L.C. ("Navajo") and the City of Artesia("City") regarding the Wastewater Service Agreement by and between Navajo and City, Dated June 25, 2013 (the "Agreement"), see attached. Two technologies were chosen during fall 2013 for testing and potential implementation by Navajo to reduce Selenium in its waste stream. In addition to the trials Navajo has been adding reverse osmosis ("RO") reject water to the Refinery's wastewater treatment system at approximately 70 Gallons per Minute or 0.1008 Million Gallons per Day.

Per 40 CFR 403.6(d)

(d) Dilution prohibited as substitute for treatment. *Except where expressly authorized to do so by an applicable Pretreatment Standard or Requirement, no Industrial User shall ever increase the use of process water, or in any other way attempt to dilute a Discharge as a partial or complete substitute for adequate treatment to achieve compliance with a Pretreatment Standard or Requirement. The Control Authority may impose mass limitations on Industrial Users which are using dilution to meet applicable Pretreatment Standards or Requirements, or in other cases where the imposition of mass limitations is appropriate.*

The October 2014 monthly average flow contribution from the Navajo Refining Company LLC is recorded as .173 MGD. This industrial contribution is approximately 12 % of the wastewater being treated at the City of Artesia WWTP at that time. If an increase of influent from the Navajo Refining Company LLC is expected to be above the amount identified in the permit application 0.238 MGD, notice must be given to EPA and NMED prior to that increase.

City of Artesia Waste Water Treatment Plant
NPDES Permit NM0022268
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February 11, 2015

Section D-Self-Monitoring-Overall Rating of "Unsatisfactory"

The permit requires in Part III. C. Monitoring and Records.
2. Representative Sampling

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

Finding:

1. The loading calculations on the Discharge Monitoring Reports (DMRs) are not being done with effluent flow readings. The facility is using the influent flow reading, not the required effluent flow reading. This may not reflect the true loading discharge flow.

   Flow on day of sampling (MGD) x concentration (mg/L) x 8.34 (lbs/gal) = Loading (lbs/day)

2. The EPA is encouraging permittees to transition from submitting DMRs as paper copies to the NetDMR system. Information on the NetDMR training can be found at: http://epa.gov/netdmr/about/training.html additionally, the State conducts classes on a periodic basis, through the Operator Certification Schools. Facility personnel are encouraged to attend these training sessions.

Section E-Flow Measurement – Overall Rating of "Unsatisfactory"

The permit requires in Part III C. 6. FLOW MEASUREMENTS:

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected, shall be capable of measuring flow with a maximum deviation 10% from true discharge tares throughout the range of expected discharge volumes.

Findings:

The effluent flow meter is not installed correctly and cannot be used to measure or to report effluent flow volumes and pollutant loading values. The influent flow meter flow values are being used for reporting purposes. Using influent flow reading, not the required effluent flow, may not reflect the true discharge flow.

City of Artesia Waste Water Treatment Plant
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Section I -Sampling Inspection Procedure

As part of this inspection an effluent sample was collected after the final treatment unit. The sample was collected by hand at the effluent flume, see photo 3. The one liter polyethylene container was pretreated with nitric acid (HNO3) to lower the pH < 2; the sample will be tested for metals. It was then placed in an insulated box and locked in the State vehicle to ensure the integrity of the sample. A chain of custody form was employed. On February 12, 2015 the sample was delivered to and is currently being analyzed at the NM Department of Health's Scientific Laboratory Division in Albuquerque, NM. When sampling results are received, copies of the results will be sent under separate letter to EPA and to the facility.

NMED/SWQB
Official Photograph Log

Photo # 1

Photographer: Daniel Valenta	Date: 2/11/2015	Time: 1032 hours
City/County: Artesia WWTP/Eddy County		
Location: 1702 North Haldeman Rd, Artesia, NM 88210		
Subject: Headworks of WWTP, influent flow is measured at this strip of metal. The operator did not know if the meter had ever been calibrated or the details of its operation.		

NMED/SWQB
Official Photograph Log

Photo # 2

Photographer: Daniel Valenta	Date: 2/11/2015	Time: 1033 hours
City/County: Artesia WWTP/Eddy County		
Location: 1702 North Haldeman Rd, Artesia, NM 88210		
Subject: Headworks of WWTP, there was a staff gauge present that could be used to check the measurements of the flow meter.		

NMED/SWQB
Official Photograph Log

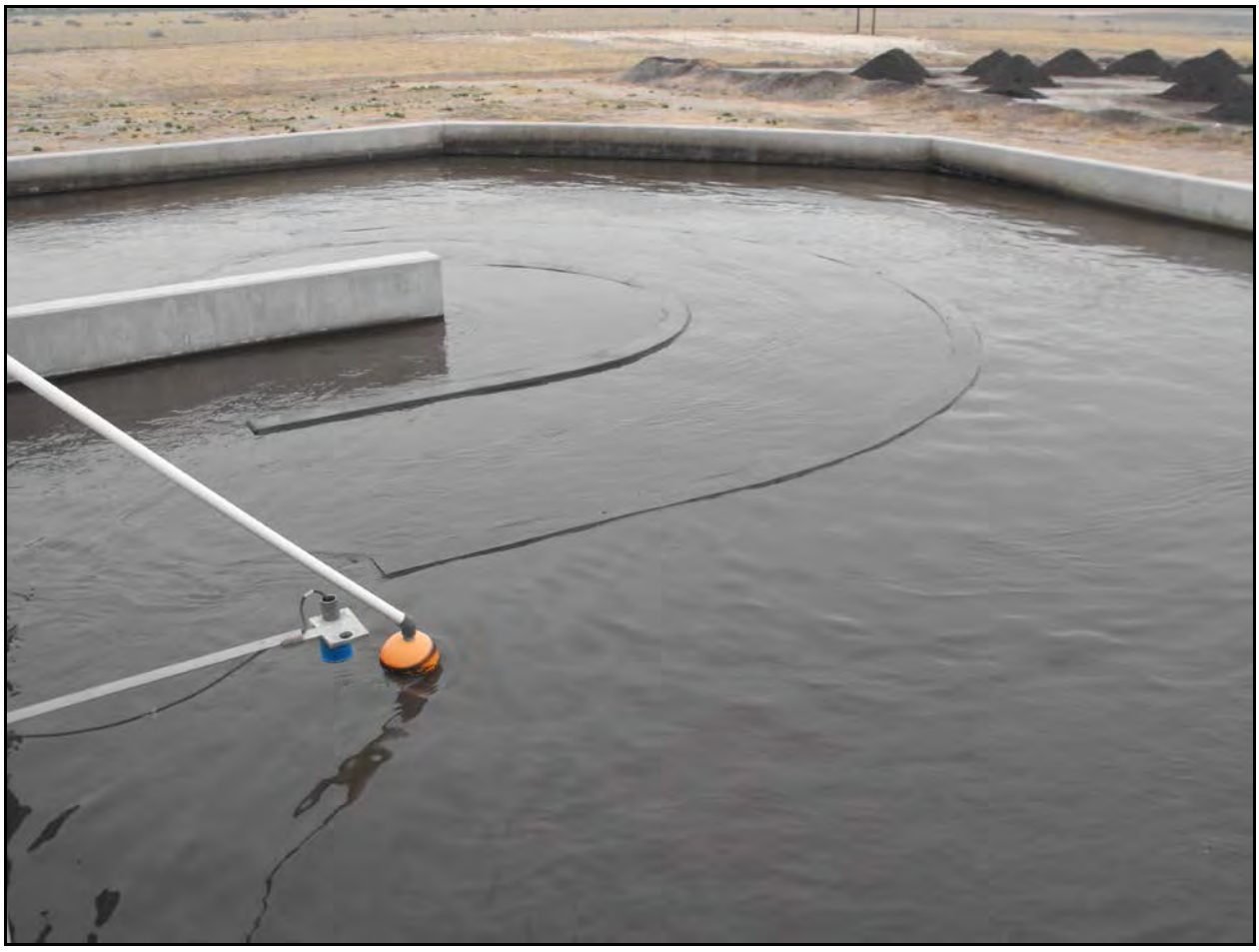
Photo # 3

Photographer: Daniel Valenta	Date: 2/11/2015	Time: 1010 hours
City/County: Artesia WWTP/Eddy County		
Location: 1702 North Haldeman Rd, Artesia, NM 88210		
Subject: Effluent flume of WWTP, due to the alignment of the discharge pipe water backs up into the flume giving inaccurate flow reading.		

NMED/SWQB
Official Photograph Log

Photo # 4

Photographer: Daniel Valenta	Date: 2/11/2015	Time: 1038 hours
City/County: Artesia WWTP/Eddy County		
Location: 1702 North Haldeman Rd, Artesia, NM 88210		
Subject: One of the aeration basins, solids appeared to be old. Note compose piles in the background, these are used around the City of Artesia.		



NMED/SWQB
Official Photograph Log

Photo # 5

Photographer: Daniel Valenta	Date: 2/11/2015	Time: 1043 hours
City/County: Artesia WWTP/Eddy County		
Location: 1702 North Haldeman Rd, Artesia, NM 88210		
Subject: One of the clarifier units, these appeared to be well maintained and balanced.		

FACILITY NAME AND PERMIT NUMBER:
Artesia, City of NM002268

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

___Yes ✓ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. _____

b. Number of CIUs. 1.00

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Navajo Refining Company

Mailing Address: PO Draw 159
Artesia, New Mexico 88211

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Petroleum Refining

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Gasoline, Diesel, Jet Fuel, Asphalt

Raw material(s): Crude Oil

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

21,600.00 gpd (✓ continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

216,000.00 gpd (✓ continuous or _____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ___Yes ___No

b. Categorical pretreatment standards ✓ Yes ___No

If subject to categorical pretreatment standards, which category and subcategory?

(40 CFR 419.17) Pretreatment Standards for new sources

FACILITY NAME AND PERMIT NUMBER:
Artesia, City of NM002268

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F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____Yes ✓ No If yes, describe each episode.

_____

_____

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? ____Yes ✓ No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

_____Truck _____Rail _____Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____Yes (complete F.13 through F.15.) ✓ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

_____

_____

_____

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

_____

_____

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____Yes ____No

If yes, describe the treatment (provide information about the removal efficiency):

_____

_____

b. Is the discharge (or will the discharge be) continuous or intermittent?

____Continuous ____Intermittent If intermittent, describe discharge schedule.

_____

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS

If the treatment works has a combined sewer system, complete Part G.

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

a. All CSO discharge points.

b. Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).

c. Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1. or on a separate drawing, of the combined sewer collection system that includes the following information:

a. Locations of major sewer trunk lines, both combined and separate sanitary.

b. Locations of points where separate sanitary sewers feed into the combined sewer system.

c. Locations of in-line and off-line storage structures.

d. Locations of flow-regulating devices.

e. Locations of pump stations.

CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

G.3. Description of Outfall.

a. Outfall number _____

b. Location

_____
(City or town, if applicable) (Zip Code)

_____
(County) (State)

_____
(Latitude) (Longitude)

c. Distance from shore (if applicable) _____ ft.

d. Depth below surface (if applicable) _____ ft.

e. Which of the following were monitored during the last year for this CSO?

____Rainfall ____CSO pollutant concentrations ____CSO frequency

____CSO flow volume ____Receiving water quality

f. How many storm events were monitored during the last year? _____

G.4. CSO Events.

a. Give the number of CSO events in the last year.

_____ events (___ actual or ___ approx.)

b. Give the average duration per CSO event.

_____ hours (____ actual or ____ approx.)

c. Give the average volume per CSO event.

_____ million gallons (_____ actual or _____ approx.)

d. Give the minimum rainfall that caused a CSO event in the last year.

_____ inches of rainfall

G.5. Description of Receiving Waters.

a. Name of receiving water: _____

b. Name of watershed/river/stream system: _____

United States Soil Conservation Service 14-digit watershed code (if known): _____

c. Name of State Management/River Basin: _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

G.6. CSO Operations.

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

_____

_____

END OF PART G.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

Navajo P H Sheet October 2014

Date	Sample Taken	Sample Tested	Type of Sample	PH	Temp. C	Sampled By	Totalizer	Daily Flow	Flow
10/1/14	0845	0846	Grab	7.48	24.8	DO	83,292,190	190,312	YES
10/2/14	0825	0826	Grab	7.54	24.5	DO	83,477,903	185,713	YES
10/3/14	0835	0836	Grab	7.43	22.6	DO	83,663,607	185,704	YES
10/4/14	0815	0816	Grab	7.32	25.7	DO	83838338	174,731	YES
10/5/14	0800	0801	Grab	7.44	22.6	DO	84022189	183,851	YES
10/6/14	0905	0908	Grab	7.46	25.0	JC	84226075	203,886	YES
10/7/14	0740	0742	Grab	7.58	24.6	JC	84401114	175,039	YES
10/8/14	0844	0846	Grab	7.45	24.8	JC	84592468	191,354	YES
10/9/14	0800	0802	Grab	7.46	27.1	JC	84770230	177,762	YES
10/10/14	1336	1339	Grab	7.29	29.9	JC	84993834	223,604	YES
10/11/14	0704	0706	Grab	7.10	16.8	JC	85071417	77,583	YES
10/12/14	0714	0716	Grab	7.78	23.1	JC	85239140	167,723	YES
10/13/14	0844	0846	Grab	7.67	24.7	JC	85441646	202,506	YES
10/14/14	0759	0801	Grab	7.79	22.5	PH	85627376	185,730	YES
10/15/14	0846	0848	Grab	7.74	20.7	PH	85825917	198,541	YES
10/16/14	0846	0849	Grab	7.70	19.6	PH	86016365	190,448	YES
10/17/14	0820	0823	Grab	7.55	20.9	PH	86,200,448	184,083	YES
10/18/14	0724	0726	Grab	7.75	21.5	PH	86,387,558	187,110	YES
10/19/14	0734	0737	Grab	7.63	24.9	PH	86574023	186,465	YES
10/20/14	0736	0738	Grab	7.29	25.8	PH	86766205	192,182	YES
10/21/14	0939	0941	Grab	7.40	26.6	JC	86971382	205,177	YES
10/22/14	0750	0752	Grab	7.70	27.4	JC	87146608	175,226	YES
10/23/14	0848	0850	Grab	7.58	26.2	JC	87342629	196,021	YES
10/24/14	0739	0741	Grab	7.84	23.4	JC	87522028	179,399	YES
10/25/14	0902	0904	Grab	7.76	26.4	JC	87723190	201,162	YES
10/26/14	0703	0705	Grab	7.73	24.5	JC	87895522	172,332	YES
10/27/14	0745	0747	Grab	7.88	24.7	JC	88089699	194,177	YES
10/28/14	0826	0827	Grab	7.90	20.9	JO	88281960	192,261	YES
10/29/14	1033	1035	Grab	7.44	22.8	JC	88482162	200,202	YES
10/30/14	1000	1002	Grab	7.28	22.8	JC	88665750	183,588	YES
10/31/14	NO DELTA		Grab					-88665750	YES

Navajo P H Sheet — November 2014

Date	Sample Taken	Sample Tested	Type of Sample	PH	Temp. C	Sampled By	Totalizer	Daily Flow	Flow
11/1/14	0704	0705	Grab	7.96	22.9	JO	89,016,255		YES
11/2/14	0715	0716	Grab	7.81	24.7	JO	89,216,148	199,893	YES
11/3/14	no data	no data	Grab	no data	no data	no data	89,216,148	0	
11/4/14	0720	0721	Grab	7.84	19.8	DO	89,593,959	377,811	YES
11/5/14	0936	0937	Grab	7.87	23.8	DO	89,798,571	204,612	YES
11/6/14	0845	0846	Grab	7.72	21.0	DO	89,977,165	178,594	YES
11/7/14	0806	0807	Grab	7.84	22.5	DO	90,158,155	180,990	YES
11/8/14	0800	0801	Grab	7.74	21.1	DO	90,334,875	176,720	YES
11/9/14	0759	0801	Grab	7.80	22.4	DO	90,518,311	183,436	YES
11/10/14	0744	0745	Grab	8.05	26.6	PH	90,707,924	189,613	YES
11/11/14	0850	0850	Grab	7.50	21.1	PH	90,892,691	184,767	YES
11/12/14	0848	0849	Grab	7.85	17.4	PH	91,069,542	176,851	YES
11/13/14	0759	0800	Grab	7.99	22.0	PH	91,237,506	167,964	YES
11/14/14	1002	1003	Grab	7.86	26.1	PH/AM	91,439,750	202,244	YES
11/15/14	0742	0744	Grab	7.67	23.5	PH	91,614,146	174,396	YES
11/16/14	0729	0730	Grab	7.75	23.4	PH	91,798,875	184,729	YES
11/17/14	0748	0749	Grab	7.79	24.3	PH	91,993,629	194,754	YES
11/18/14	0740	0742	Grab	7.52	23.9	JC	92,182,940	189,311	YES
11/19/14	0738	0740	Grab	7.48	20.2	JC	92,370,283	187,343	YES
11/20/14	0815	0817	Grab	7.41	25.2	AM	92,563,816	193,533	YES
11/21/14	0752	0753	Grab	7.40	22.1	AM	92,748,794	184,978	YES
11/22/14	0707	0709	Grab	7.31	20.2	JC	92,930,550	181,756	YES
11/23/14	0710	0712	Grab	7.72	20.9	jc	93,118,364	187,814	YES
11/24/14	0810	0812	Grab	8.30	23.7	PH	93,314,315	195,951	YES
11/25/14	0746	0748	Grab	8.45/8.43	21.6	PH	93,491,760	177,445	YES
11/26/14	0754	0755	Grab	8.45	21.2	PH	93,681,991	190,231	YES
11/27/14	0718	0719	Grab	8.41	23.7	JO	93,862,787	180,796	YES
11/28/14	0820	0821	Grab	8.40	23.7	JO	94,067,023	204,236	YES
11/29/14	0715	0716	Grab	8.46	21.6	JO	94,229,382	162,359	YES
11/30/14	0805	0806	Grab	8.37	23.9	JO	94,423,161	193,779	YES

HOLLYFRONTIER.

May 27, 2014

The Honorable Phillip Burch
Mayor, City of Artesia
P.O. Box 1310
Artesia, New Mexico 88211-1310

Re: Update on Selenium Removal Technologies and Understanding between Navajo Refining Company, L.L.C. ("Navajo") and the City of Artesia ("City") regarding the Wastewater Service Agreement by and between Navajo and City, dated June 25, 2013 (the "Agreement")

Dear Mayor Burch:

This letter (1) provides an update on the status of selenium removal technologies at Navajo's Artesia Refinery, (2) memorializes the understanding reached between Navajo and the City regarding the date for Navajo's compliance with certain Discharge Limits in the above-referenced Agreement and (3) amends the Agreement accordingly.

Selenium Removal Technologies

Navajo has been working with CH2M HILL since 2012 to assess and evaluate different selenium treatment options at its Artesia Refinery. Two technologies were chosen during fall 2013 for testing and potential implementation by Navajo: iron co-precipitation (ICP) and SeRT® (Selenium Removal Technology).

On November 26, 2013, Navajo completed installation of the equipment necessary to conduct a scale-up trial of the ICP process at the Refinery's wastewater treatment system ("WWTS"). The trial commenced on November 27, 2013 and concluded on January 31, 2014. This trial enabled Navajo to evaluate associated technical problems with this technology, and the results showed that ICP efficiently removed selenium across the system at an average rate of approximately 73%. On February 1, 2014, Navajo moved the trial to full-scale operation with continuous addition of ferric chloride at an iron dose of 50 mg/L.

Navajo has also expedited the installation of SeRT®. This technology was developed by Phillips 66 to remove selenocyanate from aqueous streams. Based on previous testing, most of the selenium in the Refinery's aqueous, sour water process streams is in the form of selenocyanate. Phillips 66 performed bench scale-testing for Navajo in spring 2013, and Navajo is first assessing this technology using an existing (trial) 100 gpm SeRT® unit on the Refinery's sour water process streams. Mechanical completion of the trial unit occurred on January 17, 2014 and the unit began operating on January 31, 2014. Stable operation of the trial SeRT® unit was achieved on March 20, 2014, and the trial results through April 21 indicate an average total selenium removal efficiency of 92%. Based on the results of the SeRT® trial, Navajo may install a full capacity, permanent 200 gpm SeRT® unit or modify the existing 100 gpm trial SeRT® unit. Process engineering for a full capacity permanent unit was completed in mid-February 2014. Based on the SeRT® process results, Navajo will consider discontinuing use of the ICP process.

Navajo is also still evaluating other selenium removal technologies and their possible implementation at the Refinery.

In addition to the ICP and SeRT® trials, Navajo has been adding reverse osmosis ("RO") reject water to the WWTS (at approximately 70 gpm). As part of other Refinery activities, Navajo plans to continue adding some RO reject water to the wastewater collection system.

Amendment to Wastewater Service Agreement

Navajo and the City entered into the Agreement for the discharge of a portion of Navajo's wastewater effluent into the City's publicly owned treatment works ("POTW") under the terms and conditions in the Agreement. The Agreement sets forth certain Discharge Limits, including a Daily Maximum limit of 0.024 mg/L and Monthly (30-Day) Average limit of 0.014 mg/L for total selenium.

Effective September 1, 2013, the United States Environmental Protection Agency (EPA) renewed NPDES Permit No. NM0022268 (the "NPDES Permit") governing wastewater discharges from the City's POTW. The NPDES Permit establishes a Daily Maximum limit of 7.4 µg/L and a 30-Day Average limit of 5.0 µg/L for total selenium and includes a compliance schedule that allows the City at least three years from the NPDES Permit's effective date to meet these selenium discharge limitations. The City is also required to implement actions to control selenium in its discharge and, as part of that effort, is conducting a Local Limits Study.

Based on Navajo's ongoing efforts to test and implement selenium reduction technology at the Refinery, the compliance schedule for achieving the selenium limits in the City's NPDES Permit, and the City's on-going Local Limits Study under the conditions of the NPDES Permit, Navajo requested that the City provide it with interim relief from the total selenium limits under the Agreement. The City was willing to grant such relief, provided that Navajo would be subject to interim limits for total selenium that would be calculated in accordance with EPA's Local Limits Development Guidance and the Region 8 Local Limits Spreadsheet, taking into account the New Mexico Water Quality Control Commission groundwater standard for selenium, and the sewage sludge quality standard in the NPDES Permit. Based on these considerations, CH2M HILL calculated interim limits for total selenium as set forth in the Technical Memorandum attached hereto.

In light of the foregoing, Navajo and the City agree to amend the Agreement as follows:

Paragraph E(2) is hereby amended and restated in its entirety to read as follows:

(2) Quality:

(a) With the exception of selenium, the quality of the Non-Domestic Wastewater or Industrial Wastewater delivered to the City shall be governed by the Discharge Limits as set forth in Attachment 1.

(b) Effective as of June 25, 2013, and until August 31, 2015, Navajo shall comply with the following discharge limits for selenium: 0.50 mg/L Daily Maximum, 0.035 mg/L Monthly Average.

(c) On and after September 1, 2015, Navajo shall comply with the Discharge Limits for selenium in Section 2.2 of Attachment 1 to the Agreement.

Sincerely,

Michael G. McKee
Vice President & Refinery Manager

ACCEPTED AND AGREED TO:

Michael G. McKee
Vice President & Refinery Manager
Navajo Refining Company, L.L.C.
Artesia, NM 88210
(575) 748-3311

Date: 28 May 2014

Phillip Burch, Mayor
For City of Artesia, New Mexico
Artesia, NM 88210
(575) 746-2122

Date: 5-27-14

Attest: _____
City Clerk